Washington State Institute for Public Policy

Substance Abuse Benefit-Cost Results

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our technical manual.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

Life Skills Training

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Life Skills Training (LST) is a school-based classroom intervention to reduce the risks of alcohol, tobacco, drug abuse, and violence by targeting social and psychological factors associated with initiation of risky behaviors. Teachers deliver the program to middle/junior high school students in 24 to 30 sessions over three years. Students in the program are taught general self-management and social skills and skills related to avoiding substance use.

Benefit-Cost Summary

Program benefits	
Participants	$424
Taxpayers	$220
Other	$242
Other indirect	$14
Total	$900
Costs	($32)
Benefits minus cost	$868

Summary statistics	
Benefit to cost ratio	$28.19
Benefits minus costs	$868
Probability of a positive net present value	76 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

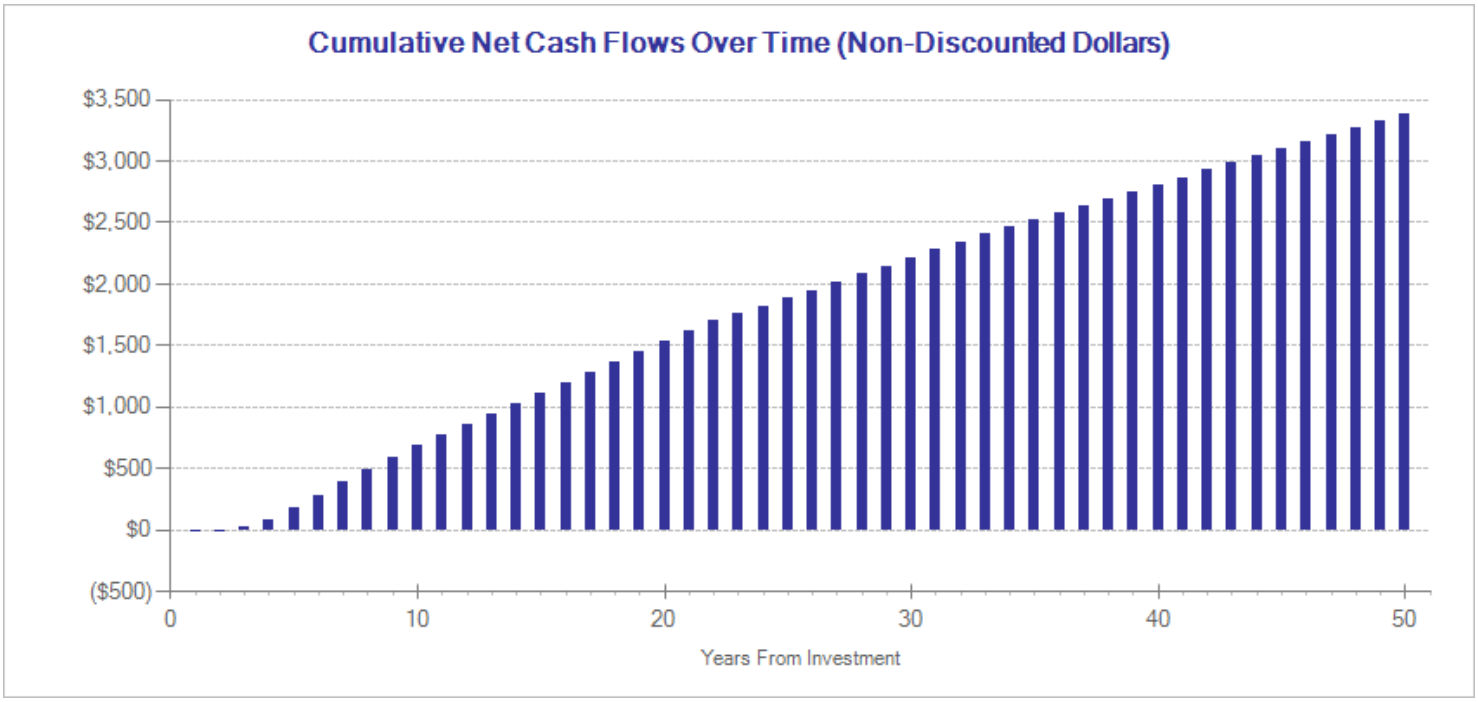
Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$47	$144	$23	$215
Labor market earnings (hs grad)	$1,702	$726	$899	$0	$3,327
Health care (smoking)	$54	$77	$82	$39	$252
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$1
Adjustment for deadweight cost of program	($1,333)	($630)	($883)	($49)	($2,894)
Totals	$424	$220	$242	$14	$900

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	$30	1	2009	Present value of net program costs (in 2012 dollars)	($32)
Comparison costs	$0	1	2009	Uncertainty (+ or - %)	10 %

Cost estimates for materials and per-teacher on-line training are from the LST website (http://www.lifeskillstraining.com). We also included a per-student estimate for the cost of training teachers. This estimate assumes that each trained teacher provides LST instruction to an average of 375 students over 5 years.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Age of initiation (tobacco)	Primary	n/a	0.000	0.099	0.000	-0.056	0.099	14	-0.056	0.099	24
Age of initiation (cannabis)	Primary	n/a	0.000	0.112	0.000	-0.020	0.112	14	-0.020	0.112	24
Age of initiation (alcohol)	Primary	n/a	0.000	0.110	0.000	-0.032	0.110	14	-0.032	0.110	24
Internalizing symptoms	Primary	n/a	0.000	0.091	0.000	-0.014	0.091	14	-0.014	0.091	24
Alcohol use in high school	Primary	n/a	0.000	0.109	0.000	-0.015	0.109	18	-0.015	0.109	28
Smoking in high school	Primary	n/a	0.000	0.102	0.000	-0.155	0.102	18	-0.155	0.102	28
Cannabis use in high school	Primary	n/a	0.000	0.121	0.000	-0.086	0.121	18	-0.086	0.121	28

Project Towards No Drug Abuse (TND)

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: This is a drug abuse prevention program with a focus on high school youth who are at risk for drug abuse. It has been tested at traditional and alternative high schools. A set of 12 in-class interactive sessions addresses the use of cigarettes, alcohol, marijuana, and hard drug use.

Benefit-Cost Summary

Program benefits	
Participants	$18
Taxpayers	$16
Other	$13
Other indirect	$24
Total	$71
Costs	($15)
Benefits minus cost	$56

Summary statistics	
Benefit to cost ratio	$4.88
Benefits minus costs	$56
Probability of a positive net present value	66 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Labor market earnings (smoking)	$8	$3	$0	$25	$35
Health care (smoking)	$11	$13	$13	$7	$43
Adjustment for deadweight cost of program	$0	$0	$0	($7)	($7)
Totals	$18	$16	$13	$24	$71

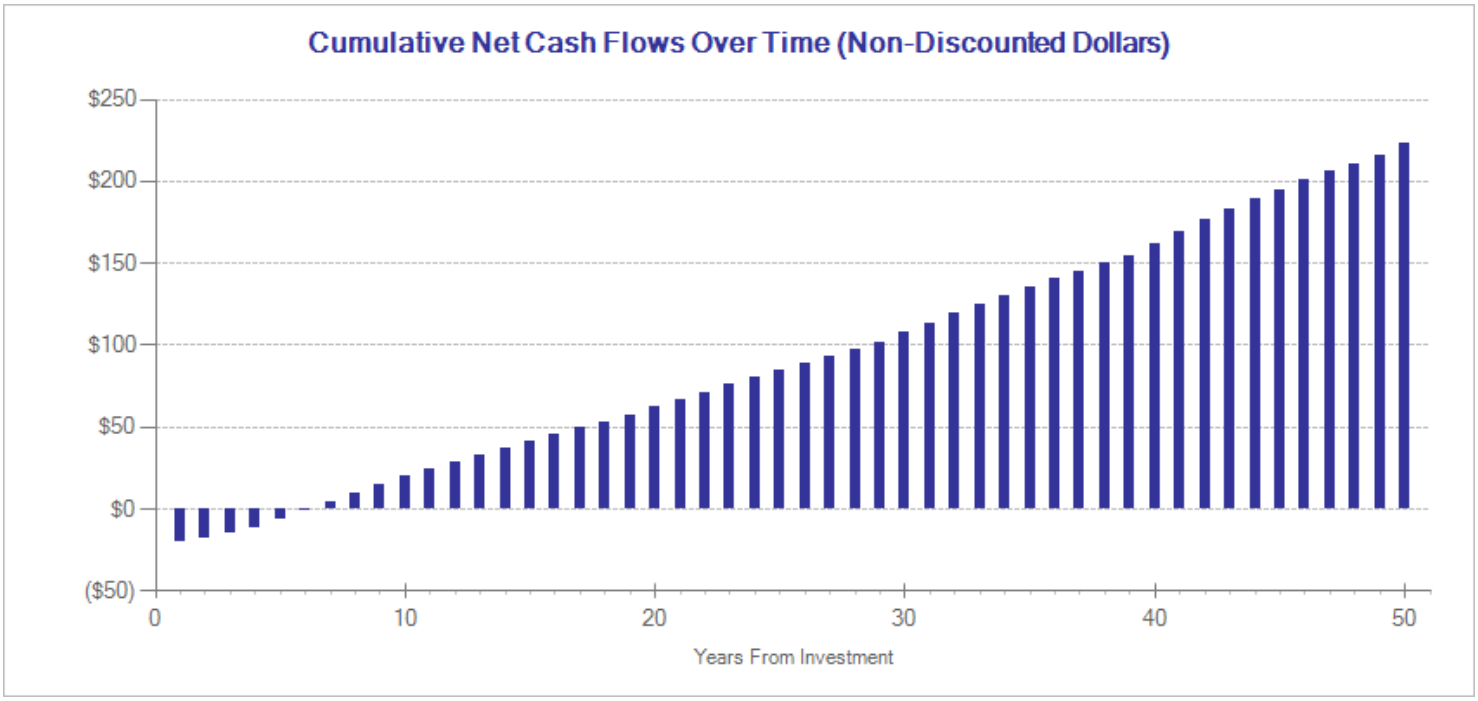
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$14	1	2010
Comparison costs	$0	1	2010

Summary statistics	
Present value of net program costs (in 2012 dollars)	($15)
Uncertainty (+ or - %)	10 %

Cost estimates for student materials ($12) and per-teacher training provided by Project TND. The per-student estimate for the cost of training teachers is based on an average $1,650 one- to two-day training fee plus trainer travel costs of $1,065 trainer (http://tnd.usc.edu/training_cost.php). The estimate assumes that each trained teacher provides TND to an average of 375 students over 5 years.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Regular smoking	Primary	6	-0.050	0.047	0.291	-0.021	0.047	18	-0.021	0.047	28
Age of initiation (illicit drugs)	Primary	6	0.248	0.081	0.002	0.114	0.081	18	0.114	0.081	28
Problem alcohol use	Primary	6	-0.048	0.026	0.069	-0.019	0.026	18	-0.019	0.026	28
Cannabis use	Primary	6	-0.059	0.026	0.026	-0.018	0.026	18	-0.018	0.026	28

Project ALERT

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Project ALERT is a middle/junior high school-based program to prevent tobacco, alcohol, and marijuana use. Over 11 sessions in the 7th grade and 3 boosters in the 8th grade, the program helps students understand that most people do not use drugs and teaches them to identify and resist the internal and social pressures that encourage substance use.

Benefit-Cost Summary

Program benefits	
Participants	$8
Taxpayers	$4
Other	$1
Other indirect	($72)
Total	($58)
Costs	($147)
Benefits minus cost	($205)

Summary statistics	
Benefit to cost ratio	($0.40)
Benefits minus costs	($205)
Probability of a positive net present value	2 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$0	$0	$0	$0
Health care (smoking)	$1	$1	$1	$1	$4
Labor market earnings (alcohol abuse/dependence)	$7	$3	$0	$0	$11
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$0
Adjustment for deadweight cost of program	$0	$0	$0	($73)	($73)
Totals	$8	$4	$1	($72)	($58)

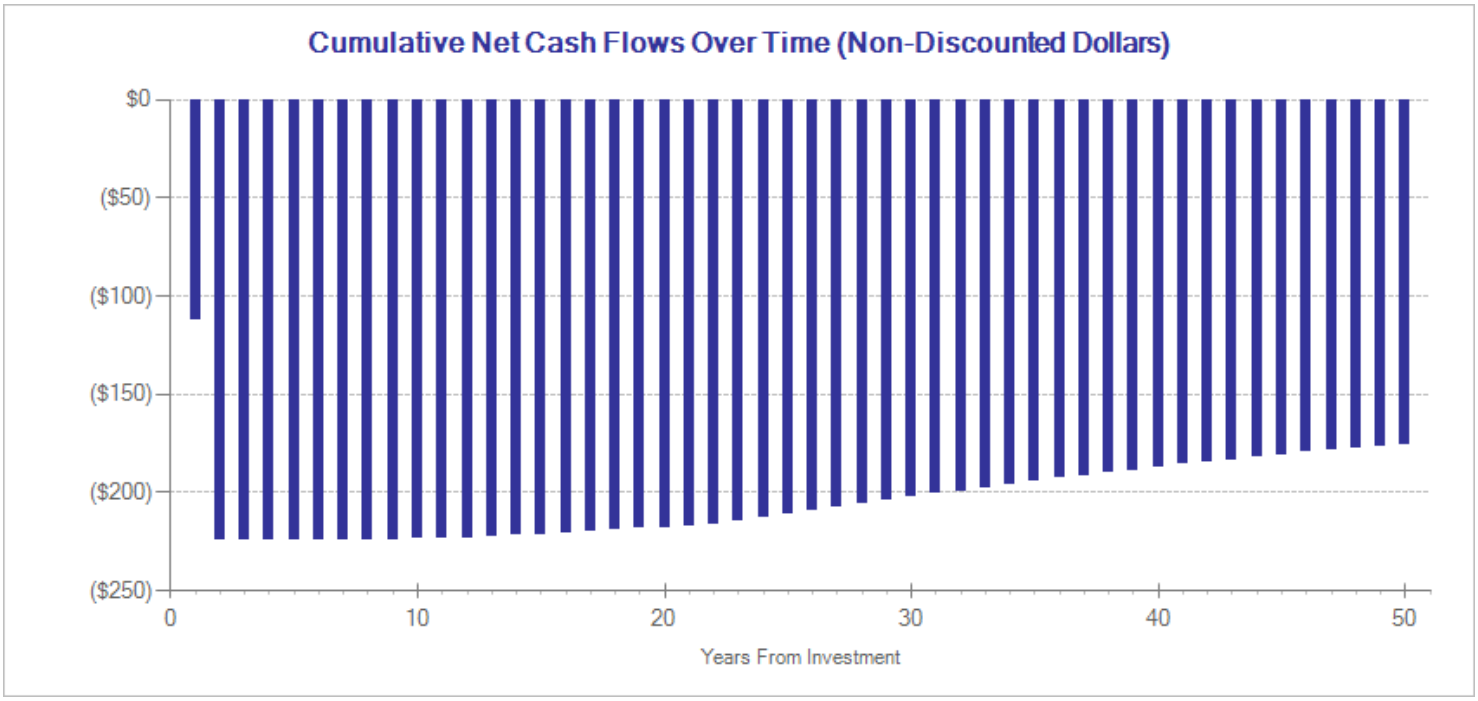
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$60	2	2002
Comparison costs	$0	2	2002

Summary statistics	
Present value of net program costs (in 2012 dollars)	($147)
Uncertainty (+ or - %)	10 %

$120 in 2002 dollars (Miller and Hendrie 2005)

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Age of initiation (tobacco)	Primary	4	-0.031	0.054	0.000	0.045	0.054	15	0.045	0.054	25
Age of initiation (cannabis)	Primary	4	-0.042	0.076	0.016	-0.031	0.076	15	-0.031	0.076	25
Age of initiation (alcohol)	Primary	4	0.016	0.039	0.102	0.009	0.039	15	0.009	0.039	25

Project STAR

Benefit-cost estimates updated October 2013. Literature review updated April 2012.

Program Description: Also known as the Midwestern Prevention Project, Project STAR is a multi-component prevention program with the goal of reducing adolescent tobacco, alcohol, and marijuana use. The program consists of a 6th- and 7th-grade intervention supported by parent, community, and mass media components addressing the multiple influences of substance use.

Benefit-Cost Summary

Program benefits	
Participants	$91
Taxpayers	$81
Other	$65
Other indirect	($96)
Total	$142
Costs	($500)
Benefits minus cost	($358)

Summary statistics	
Benefit to cost ratio	$0.28
Benefits minus costs	($358)
Probability of a positive net present value	1 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$0	$1	$0	$2
Labor market earnings (smoking)	$37	$16	$0	$121	$174
Health care (smoking)	$54	$65	$64	$33	$215
Property loss (alcohol abuse/dependence)	$0	$0	$0	$0	$0
Adjustment for deadweight cost of program	$0	$0	$0	($250)	($250)
Totals	$91	$81	$65	($96)	$142

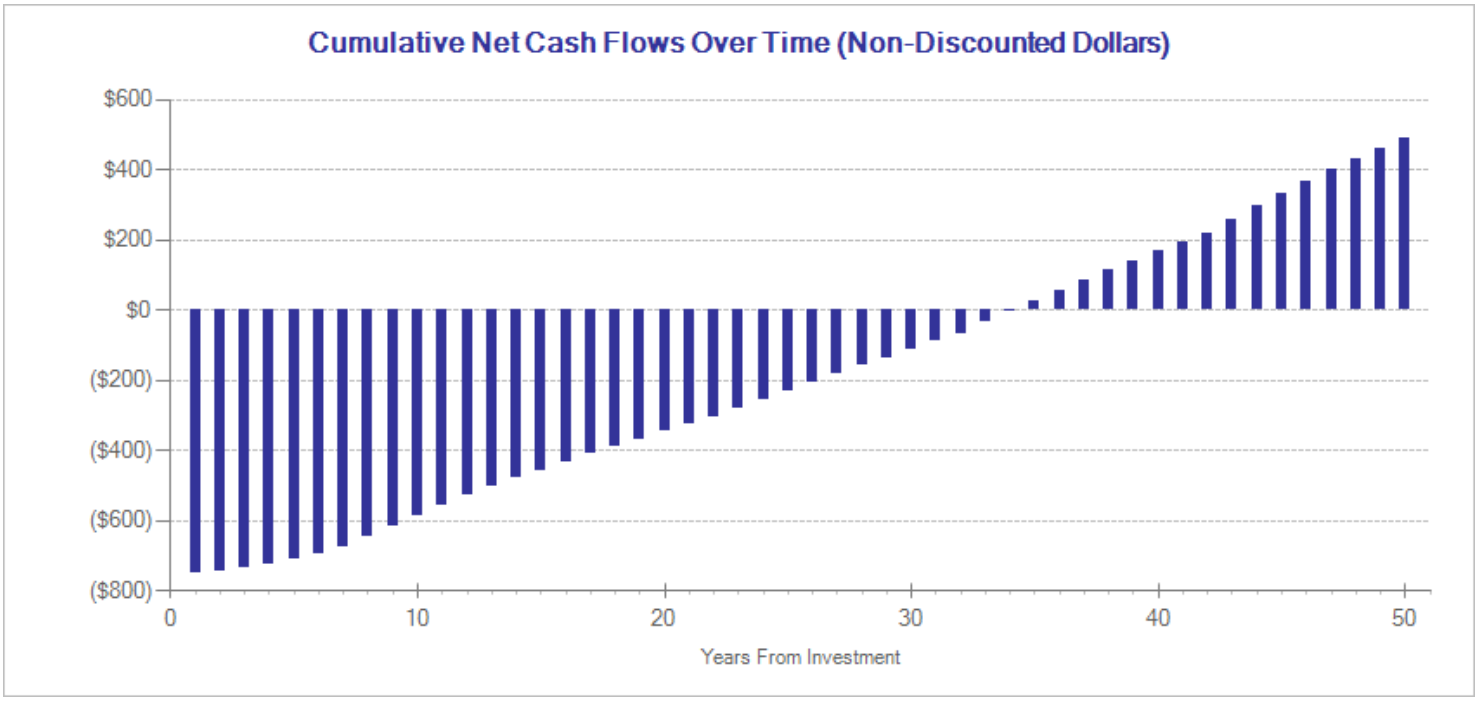
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$400	1	2002
Comparison costs	$0	1	2002

Summary statistics	
Present value of net program costs (in 2012 dollars)	($500)
Uncertainty (+ or - %)	10 %

$400 per pupil (Miller and Hendrie 2005).

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Age of initiation (cannabis)	Primary	2	0.348	0.051	0.000	0.155	0.051	15	0.155	0.051	25
Regular smoking	Primary	2	-0.256	0.032	0.000	-0.110	0.032	15	-0.110	0.032	25
Age of initiation (alcohol)	Primary	2	0.144	0.045	0.001	0.061	0.045	15	0.061	0.045	25

Adolescent Assertive Continuing Care

Benefit-cost estimates updated October 2013. Literature review updated June 2013.

Program Description: This intervention was designed for youth returning to the community after residential substance abuse treatment. The aim of the intervention is to encourage youth to continue in outpatient treatment. Case workers make weekly home visits, advocate for needed services, and aid in job search and other pro-social activities.

Benefit-Cost Summary

Program benefits	
Participants	$2,031
Taxpayers	$1,265
Other	$784
Other indirect	$10,423
Total	$14,502
Costs	($2,165)
Benefits minus cost	$12,337

Summary statistics	
Benefit to cost ratio	$6.71
Benefits minus costs	$12,337
Probability of a positive net present value	88 %

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2012). The economic discount rates and other relevant parameters are described in our technical manual.

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to: Participants	Taxpayers	Other	Other indirect	Total benefits
From primary participant					
Crime	$0	$82	$307	$41	$429
Property loss (alcohol abuse/dependence)	$14	$0	$25	$0	$39
Labor market earnings (illicit drug abuse/dependence)	$1,698	$724	$0	$11,235	$13,657
Health care (illicit drug abuse/dependence)	$319	$459	$452	$227	$1,457
Adjustment for deadweight cost of program	$0	$0	$0	($1,080)	($1,080)
Totals	$2,031	$1,265	$784	$10,423	$14,502

Detailed Cost Estimates

	Annual cost	Program duration	Year dollars
Program costs	$2,037	1	2008
Comparison costs	$0	1	2008

Summary statistics	
Present value of net program costs (in 2012 dollars)	($2,165)
Uncertainty (+ or - %)	10 %

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical manual.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	-0.146	0.181	0.181	-0.108	0.181	16	-0.108	0.181	26
Substance abuse	Primary	1	-0.215	0.210	0.306	-0.159	0.210	16	-0.159	0.210	26
Illicit drug abuse or dependence	Primary	1	-0.318	0.183	0.082	-0.236	0.183	16	-0.236	0.183	26

Brief Intervention in primary care

Literature review updated May 2014.

Program Description: Patients in primary are screened for "hazardous" alcohol use (not alcohol dependence). Those screening positive receive a brief intervention. The intervention, commonly delivered by the primary care provider, includes feedback on the patients' consumption compared to their peers and motivational interview to encourage reduction in consumption. Patients typically receive a single intervention lasting 15 minutes to one hour.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	4	-0.232	0.135	0.085	-0.232	0.135	39	n/a	n/a	41
Problem alcohol use	Primary	45	-0.195	0.025	0.000	-0.195	0.025	39	-0.027	0.038	41
Hospitalization (general)	Primary	2	-0.261	0.332	0.432	-0.261	0.332	39	n/a	n/a	41
Drinking and driving	Primary	3	-0.175	0.123	0.157	-0.175	0.123	39	n/a	n/a	41

Brief Intervention in a medical hospital

Literature review updated May 2014.

Program Description: Inpatients in medical hospitals are screened for "hazardous" alcohol use (not alcohol dependence). Those screening positive receive a brief intervention, delivered by health care staff or other professional. The intervention includes feedback on the patients' consumption compared to their peers and motivational interview to encourage reduction in consumption. Patients typically receive a single intervention lasting 15 minutes to one hour.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Problem alcohol use	Primary	13	-0.156	0.055	0.004	-0.156	0.055	40	-0.021	0.083	42
Death	Primary	1	-0.045	0.701	0.949	-0.045	0.701	40	n/a	n/a	41

Brief Intervention in emergency department (SBIRT)

Literature review updated May 2014.

Program Description: Patients in emergency departments are screened for "hazardous" alcohol use (not alcohol dependence). Those screening positive receive a brief intervention, delivered by health care staff or other professional. The intervention includes feedback on the patients' consumption compared to their peers and motivational interview to encourage reduction in consumption. Patients typically receive a single intervention lasting 15 minutes to one hour. Patients meeting diagnostic criteria would be referred to chemical dependency treatment.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Problem alcohol use	Primary	21	-0.121	0.030	0.000	-0.121	0.030	34	-0.017	0.045	36
Emergency department visits	Primary	1	-0.317	0.321	0.322	-0.317	0.321	34	n/a	n/a	36
Drinking and driving	Primary	4	-0.158	0.080	0.048	-0.158	0.080	34	n/a	n/a	35
Injuries	Primary	1	-0.266	0.127	0.037	-0.266	0.127	34	n/a	n/a	35

Brief Alcohol Screening and Intervention of College Students (BASICS)

Literature review updated May 2014.

Program Description: College students recruited or referred are screened for hazardous drinking (not alcohol dependence). Those reporting high rates of consumption receive one to two brief motivational sessions that include comparison of the students' alcohol consumption relative to their peers. Interventions are typically delivered by graduate students or counselors.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Regular smoking	Primary	1	0.000	0.025	1.000	0.000	0.025	19	n/a	n/a	22
Problem alcohol use	Primary	19	-0.167	0.032	0.000	-0.167	0.032	19	-0.023	0.048	22
Cannabis use	Primary	1	0.000	0.025	1.000	0.000	0.025	19	n/a	n/a	22

Adolescent Community Reinforcement

Literature review updated June 2013.

Program Description: This outpatient program targets youth 12 to 22 years old with DSM-IV cannabis, alcohol, and/or other substance use disorders. The intervention seeks to replace environmental contingencies that have supported alcohol or drug use with prosocial activities and behaviors that support recovery.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	1	-0.274	0.185	0.137	-0.274	0.185	20	-0.274	0.185	30
Substance abuse	Primary	1	-0.393	0.185	0.033	-0.393	0.185	20	-0.393	0.185	30
Major depressive disorder	Primary	1	-0.405	0.185	0.028	-0.405	0.185	20	-0.204	0.078	25

Cognitive Behavior Coping Skills Therapy

Literature review updated May 2014.

Program Description: Cognitive-Behavioral Coping-Skills Therapy is a manualized, standalone treatment used to treat alcohol and/or drug abuse or dependence. This intervention emphasizes identifying high-risk situation that could lead to relapse such as social situations, depression, etc. and developing skills to cope those situations. Clients engage in problem solving, role, playing, and homework practice. The intervention is often provided in an individual therapy format but can be conducted in group formats as well.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	7	-0.229	0.122	0.060	-0.229	0.122	44	0.000	0.187	47
Employment	Primary	2	0.363	0.291	0.673	0.363	0.291	44	n/a	n/a	45
Illicit drug abuse or dependence	Primary	6	-0.218	0.095	0.021	-0.218	0.095	44	-0.494	0.223	45
Post-traumatic stress	Primary	1	-0.269	0.247	0.276	-0.269	0.247	44	n/a	n/a	47

Contingency management (higher-cost) for substance abuse

Literature review updated May 2014.

Program Description: Contingency management is a supplement to counseling treatment that rewards participants for attending treatment and/or abstaining from substance use. The intervention reviewed here focused on those with drug and/or alcohol abuse or dependence (excluding marijuana dependence) where contingencies were provided for remaining abstinent. Two methods of contingency management were reviewed: (1) A voucher system where abstinence earned vouchers that were exchangeable for goods provided by the clinic or counseling center, and (2) a prize or raffle system where clients who remained abstinent could earn the opportunity to draw from a prize bowl. Higher-cost contingency management was determined by maximum voucher or maximum expected value of prizes possible. Based on a statistical analysis of contingency management studies, we determined that programs with a maximum value of vouchers or prizes greater than $500 (in 2012 dollars) represent higher-cost contingency management.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	-0.096	0.310	0.758	-0.096	0.310	39	0.000	0.125	40
Illicit drug abuse or dependence	Primary	37	-0.519	0.060	0.000	-0.519	0.060	39	-0.154	0.238	40
Cannabis use	Primary	1	-0.301	0.312	0.334	-0.301	0.312	39	0.000	0.125	40

Family Behavior Therapy

Literature review updated May 2014.

Program Description: Family Behavior Therapy is a standalone behavioral treatment based on the Community Reinforcement Approach aimed at reducing substance use. Participants attend sessions with at least one family member, typically a parent or cohabitating partner. The treatment consists of several parts including behavioral contracting, skills to reduce interaction with individuals and situations related to drug use, impulse and urge control, communication skills, and vocational or educational training. Our findings reflect only adults treated in the program and exclude results for adolescents.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	1	-0.670	0.251	0.008	-0.670	0.251	31	0.000	0.187	34

Brief Cognitive Behavioral Intervention for Amphetamine Users

Literature review updated May 2014.

Program Description: Brief Cognitive Behavioral Interventions for Amphetamine Users is a manualized, standalone treatment that consists of two to four individual weekly sessions of cognitive-behavioral therapy. Key approaches included in this intervention include motivational interviewing, coping skills, controlling thoughts, and relapse prevention. While the manual focuses on a four-session model, the developer indicates that practitioners may use a two-session model according to client needs.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	2	-0.703	0.193	0.000	-0.703	0.193	30	0.000	0.187	33

Motivational Enhancement Therapy (Project MATCH model)

Literature review updated May 2014.

Program Description: Motivational Enhancement Therapy was designed for Project MATCH as a stand-alone intervention, delivered in four individual sessions, to build motivation to change, strengthen commitment to change, develop a plan for change, and review of progress and motivation. http://lib.adai.washington.edu/pubs/matchmonograph2.htm.
A review of motivational interviewing and motivational enhancement therapy to engage clients in treatment will be completed later in 2014.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	-0.449	0.353	0.203	-0.449	0.353	38	0.000	0.187	41

12-Step Facilitation Therapy

Literature review updated May 2014.

Program Description: 12-Step Facilitation (TSF)Therapy is a stand-alone program that encourages patients' active participation in 12-step programs such as Alcoholics Anonymous or Narcotics Anonymous. The intervention involves a brief, structured, and manual-driven approach, typically delivered in 12 to 15 individual sessions. For more information on this intervention see: http://lib.adai.washington.edu/pubs/matchmonograph1.htm

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	6	-0.330	0.132	0.013	-0.330	0.132	39	0.000	0.187	42
Illicit drug abuse or dependence	Primary	5	-0.374	0.121	0.002	-0.374	0.121	39	0.000	0.187	42

Seeking Safety: A Psychotherapy for Trauma/PTSD and Substance Abuse

Literature review updated May 2014.

Program Description: Seeking Safety is a manualized, standalone therapy designed to treat comorbid trauma/PTSD and substance use disorders. Seeking Safety covers 25 topics, each independent of the others, and allows for flexible use (mixed settings, fewer topics, etc.). The five main principles of Seeking Safety are (1) safety in relationships, thinking, behavior, and emotions; (2) treating trauma/PTSD and substance abuse at the same time; (3) a focus on ideals; (4) four content areas: cognitive, behavioral, interpersonal, and case management; and (5) attention to clinician processes (e.g. clinician self-care).

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	2	0.009	0.175	0.957	0.009	0.175	41	0.000	0.187	44
Illicit drug abuse or dependence	Primary	5	-0.058	0.093	0.535	-0.058	0.093	41	-0.098	0.131	42
Post-traumatic stress	Primary	6	-0.211	0.102	0.039	-0.211	0.102	41	0.020	0.106	42
Psychiatric symptoms	Primary	2	0.057	0.305	0.852	0.057	0.305	41	n/a	n/a	42

Contingency management (higher-cost) for marijuana use

Literature review updated May 2014.

Program Description: Contingency management is a supplement to counseling treatment that rewards participants for attending treatment and/or abstaining from substance use. The intervention reviewed here focused on those with drug and/or alcohol abuse or dependence (excluding those with a primary diagnosis of marijuana dependence) where contingencies were provided for remaining abstinent. Two methods of contingency management were reviewed: (1) A voucher system where abstinence earned vouchers that were exchangeable for goods provided by the clinic or counseling center, and (2) a prize or raffle system where clients who remained abstinent could earn the opportunity to draw from a prize bowl. Higher-cost contingency management was determined by maximum voucher or maximum expected value of prizes possible. Based on statistical analysis of contingency management studies, we determined that programs with a maximum value of vouchers or prizes greater than $500 (in 2012 dollars) represent higher-cost contingency management.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Cannabis abuse or dependence	Primary	4	-0.354	0.154	0.021	-0.354	0.154	26	-0.325	0.412	27

Community Reinforcement Approach with Vouchers

Literature review updated May 2014.

Program Description: This intervention combines the Community Reinforcement Approach with contingency management. The Community Reinforcement Approach to therapy that is relatively intensive therapy that consists of four main topics: (1) minimizing contact with known antecedents to substance use and recognizing consequences of use, (2) counseling to find alternative activities, (3) employment counseling (if needed), and (4) reciprocal relationship counseling if partner was not involved in substance use. Counseling generally occurs twice-weekly for first three months and once weekly for next three months. The contingency management portion of the intervention rewards clients with vouchers if they have negative urinalysis exams. These vouchers can be exchanged for prizes that range in value.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	1	0.002	0.472	0.996	0.002	0.472	30	n/a	n/a	33
Illicit drug abuse or dependence	Primary	8	-0.580	0.129	0.000	-0.580	0.129	30	0.000	0.187	33
Anxiety disorder	Primary	1	-0.641	0.470	0.173	-0.641	0.470	30	n/a	n/a	33

Relapse Prevention Therapy

Literature review updated May 2014.

Program Description: This intervention, developed by Marlatt and Gordon, uses a cognitive-behavioral approach to help patients anticipate problems and identify strategies to avoid using alcohol and drugs. For more information on this treatment model see: http://www.bhrm.org/guidelines/RPT%20guideline.pdf

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	4	-0.234	0.153	0.123	-0.234	0.153	41	-0.003	0.178	42
Illicit drug abuse or dependence	Primary	3	-0.217	0.287	0.451	-0.217	0.287	41	-0.003	0.178	42

Brief Marijuana Dependence Counseling

Literature review updated May 2014.

Program Description: Brief Marijuana Dependence Counseling is a standalone treatment that combines motivational enhancement therapy (usually two sessions) and cognitive-behavioral therapy (usually seven sessions) as well as case management. Sessions are generally individual in nature and focus on motivations and readiness for change; building cognitive, behavioral, and emotional skills; and assisting the client with access to additional support services.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Cannabis abuse or dependence	Primary	8	-0.364	0.138	0.009	-0.364	0.138	32	-0.323	0.226	33

Matrix Intensive Outpatient Model for the Treatment of Stimulant Abuse

Literature review updated May 2014.

Program Description: The Matrix Intensive Outpatient Model (Matrix Model) is a manualized, standalone outpatient program for treating individuals with stimulant use disorders. The program includes individual, group, and family sessions and covers topics including skills training, relapse prevention, drug education, social support, and self-help groups. Treatment generally lasts four to six months and includes multiple individual and group sessions per week.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	0.060	0.241	0.803	0.060	0.241	34	n/a	n/a	37
Employment	Primary	1	-0.146	0.382	0.703	-0.146	0.382	34	n/a	n/a	37
Illicit drug abuse or dependence	Primary	4	-0.235	0.156	0.132	-0.235	0.156	34	0.000	0.187	37
Homelessness	Primary	1	-0.071	0.457	0.877	-0.071	0.457	34	n/a	n/a	37

Holistic Harm Reduction Program

Literature review updated May 2014.

Program Description: The Holistic Harm Reduction Program (HHRP+), also called Holistic Health Recovery Program, is a manualized treatment for those with drug abuse or dependence who are HIV positive. The primary goals of HHRP+ are harm reduction, health promotion, and improving quality of life. These goals are achieved by providing the knowledge, motivation, and skills necessary to make choices that reduce harm to oneself and others. HHRP+ also addresses medical, emotional, social, and spiritual problems that can impede harm reduction. The treatment is generally provided in 12 group sessions. In the reviewed studies, HHRP+ was provided in addition to methadone treatment and standard counseling.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	2	-0.311	0.144	0.031	-0.311	0.144	39	0.000	0.187	42
STD risky behavior	Primary	2	-0.260	0.134	0.053	-0.260	0.134	39	n/a	n/a	40

Contingency management (lower-cost) for substance abuse

Literature review updated May 2014.

Program Description: Contingency management is a supplement to counseling treatment that rewards participants for attending treatment and/or abstaining from substance use. The intervention reviewed here focused on those with drug and/or alcohol abuse or dependence (excluding those with a primary diagnosis of marijuana dependence) where contingencies were provided for remaining abstinent. Two methods of contingency management were reviewed: (1) A voucher system where abstinence earned vouchers that were exchangeable for goods provided by the clinic or counseling center, and (2) a prize or raffle system where clients who remained abstinent could earn the opportunity to draw from a prize bowl. Lower-cost contingency management was determined by maximum voucher or maximum expected value of prizes possible. Based on a statistical analysis of contingency management studies, we determined that programs with a maximum value of vouchers or prizes less than or equal to $500 (in 2012 dollars) represent lower-cost contingency management.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	7	-0.290	0.076	0.001	-0.290	0.076	37	0.000	0.075	38
Illicit drug abuse or dependence	Primary	29	-0.278	0.049	0.000	-0.278	0.049	37	0.000	0.075	38
Cannabis use	Primary	3	-0.049	0.118	0.676	-0.049	0.118	37	0.000	0.075	38

Node-Link Mapping

Literature review updated May 2014.

Program Description: Node-link mapping is a manualized supplement or tool that can be used during counseling sessions. “Maps” are used as a means of visually representing a client's needs, problems, and solutions and act as a communication tool that provides an alternative way to facilitate discussion between client and counselor. These maps can also directly illustrate cause-and-effect patterns of drug use to facilitate problem solving.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	1	-0.078	0.140	0.579	-0.078	0.140	38	0.000	0.187	41

Peer support

Literature review updated May 2014.

Program Description: This analysis examined interventions provided by a peer specialist to individuals with substance abuse disorders. One study was included in this analysis. This study examined the impact of a brief motivational intervention provided by a peer specialist for individuals using heroin and cocaine. The study participants were screened and identified at walk-in general health clinics.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	1	-0.245	0.122	0.041	-0.245	0.122	39	0.000	0.187	42

Dialectical Behavior Therapy (DBT) for co-morbid substance abuse and serious mental illness

Literature review updated May 2014.

Program Description: Dialectical Behavior Therapy is a cognitive-behavioral treatment originally developed by Marsha Linehan at the University of Washington to treat those with severe mental disorders including chronically suicidal individuals often suffering from borderline personality disorder. DBT for Substance Abusers was developed by Dr. Linehan and colleagues to treat individuals with co-occurring substance use disorders and borderline personality disorder. DBT for Substance Abusers focuses on the following five main objectives: (1) motivating patients to change dysfunctional behaviors, (2) enhancing patient skills, (3) ensuring the new skills are used in daily life, (4) structuring the client's environment, and (5) training and consultation to improve the counselor's skills. For substance abusers, the primary target of the intervention is the substance abuse and specific goals include reducing abuse, alleviating withdrawal symptoms, reducing cravings, avoiding opportunities and triggers for substance abuse, creating a healthy environment and community.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	1	0.149	0.264	0.573	0.149	0.264	34	n/a	n/a	35
Illicit drug abuse or dependence	Primary	2	-0.024	0.348	0.946	-0.024	0.348	34	n/a	n/a	35
Cannabis use	Primary	1	-0.090	0.263	0.732	-0.090	0.263	34	n/a	n/a	35
Psychiatric symptoms	Primary	1	-0.596	0.270	0.027	-0.596	0.270	34	n/a	n/a	35

Parent-Child Assistance Program

Literature review updated May 2014.

Program Description: The Parent-Child Assistance Program provides home visits to new mothers of drug or alcohol-exposed infants. Visitors are paraprofessional client advocates with similar adverse life experiences as the mothers. Visits are weekly for the first six weeks after birth, then bi-weekly or more frequently as needed for up to three years.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Test scores	Secondary	1	-0.091	0.290	0.753	-0.023	0.290	3	n/a	n/a	4
Out-of-home placement	Secondary	1	0.371	0.310	0.231	0.093	0.310	3	n/a	n/a	4
Substance abuse	Primary	1	-0.128	0.329	0.698	-0.032	0.329	30	n/a	n/a	31
Repeat pregnancy	Primary	1	0.096	0.297	0.747	0.024	0.297	30	n/a	n/a	31
Repeat birth	Primary	1	0.000	0.331	0.331	0.000	0.331	30	n/a	n/a	31
Well-child visits	Secondary	1	0.186	0.573	0.746	0.046	0.573	3	n/a	n/a	4

Individual Drug Counseling Approach for Treatment of Cocaine Addiction

Literature review updated May 2014.

Program Description: Individual drug counseling for the treatment of cocaine addiction is a manualized treatment that can be provided as a component of comprehensive outpatient therapy or as a standalone treatment. The manualized version was developed for use in the Collaborative Cocaine Treatment Study, where the individual counseling was provided in addition to group counseling. The individual drug counseling approach follows a 12-step philosophy and addresses the physical, emotional, spiritual, and interpersonal needs of the client. The model is generally applied in 36 individual sessions over six months with booster sessions as needed.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Major depressive disorder	Primary	1	-0.093	0.169	0.579	-0.093	0.169	45	n/a	n/a	48
Illicit drug abuse or dependence	Primary	1	-0.307	0.167	0.066	-0.307	0.167	45	0.000	0.187	48
Anxiety disorder	Primary	1	0.044	0.168	0.793	0.044	0.168	45	n/a	n/a	48
Alcohol use	Primary	1	0.208	0.169	0.218	0.208	0.169	45	n/a	n/a	46
Psychiatric symptoms	Primary	1	-0.274	0.169	0.105	-0.274	0.169	45	n/a	n/a	46

Contingency management (lower-cost) for marijuana use

Literature review updated May 2014.

Program Description: Contingency management is a supplement to counseling treatment that rewards participants for attending treatment and/or abstaining from substance use. The intervention reviewed here focused on those with marijuana abuse or dependence where contingencies were provided for remaining abstinent. Two methods of contingency management were reviewed: (1) A voucher system where abstinence earned vouchers that were exchangeable for goods provided by the clinic or counseling center, and (2) a prize or raffle system where clients who remained abstinent could earn the opportunity to draw from a prize bowl. Lower-cost contingency management was determined by maximum voucher or maximum expected value of prizes possible. Based on a statistical analysis of contingency management studies, we determined that programs with a maximum value of vouchers or prizes less than or equal to $500 (in 2012 dollars) represent lower-cost contingency management.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Cannabis abuse or dependence	Primary	3	-0.086	0.191	0.673	-0.086	0.191	32	-0.007	0.259	33

Supportive-Expressive Psychotherapy

Literature review updated May 2014.

Program Description: Supportive-Expressive Psychotherapy (SEP) is a manualized, time-limited psychotherapy originally developed for treating psychiatric disorders that has been adapted for use with individuals with heroin and cocaine addictions. In the studies reviewed for this analysis, clients also had co-morbid psychiatric disorders. SEP is generally provided in an individual format and includes two components: supportive techniques to allow patients to feel comfortable discussing experiences and an expressive component to help patients understand problematic relationship patterns.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	0.157	0.309	0.611	0.157	0.309	36	n/a	n/a	39
Alcohol abuse or dependence	Primary	3	-0.057	0.126	0.652	-0.057	0.126	36	n/a	n/a	39
Employment	Primary	2	0.364	0.245	0.138	0.364	0.245	36	n/a	n/a	39
Major depressive disorder	Primary	3	-0.056	0.242	0.953	-0.056	0.242	36	n/a	n/a	39
Illicit drug abuse or dependence	Primary	3	0.161	0.150	0.211	0.161	0.150	36	0.000	0.187	39
Anxiety disorder	Primary	2	0.120	0.143	0.401	0.120	0.143	36	n/a	n/a	39
Psychiatric symptoms	Primary	3	-0.146	0.215	0.497	-0.146	0.215	36	n/a	n/a	37

Day treatment with abstinence contingencies and vouchers

Literature review updated May 2014.

Program Description: Day treatment with abstinence contingencies or vouchers is a standalone treatment that combines day treatment interventions with contingency management. This intervention was originally developed to treat homeless drug users. Day treatment consists of approximately 5 hours of primarily group activities including counseling, recreational activities, skills building, etc. as well as lunch. Contingencies were provided dependent on negative urinalysis results. These contingencies included housing and minimum wage employment. Other programs might also offer subsidies for utilities or vouchers for items such as personal hygiene products.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Illicit drug abuse or dependence	Primary	1	-0.231	0.213	0.279	-0.231	0.213	36	0.000	0.187	39

Behavioral Self-Control Training

Literature review updated May 2014.

Program Description: Behavioral Self-Control Training is a standalone treatment approach often used to pursue a goal of moderate or non-problematic drinking rather than complete abstinence, although abstinence goals are also permissible. This approach teaches self-monitoring, managing drinking speed and duration, identifying high-risk situations, goal setting, rewards for goal attainment, and coping skills. When used with a goal of moderate or controlled drinking, Behavioral Self-Control Training is contra-indicated for pregnant women, women trying to become pregnant, clients with medical or psychological problems worsened by drinking, clients who are mandated to remain abstinent, or in other situations where there is strong pressure for abstinence.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Alcohol abuse or dependence	Primary	12	-0.393	0.161	0.001	-0.393	0.161	41	0.165	0.181	42
Drinking and driving	Primary	1	-1.048	0.337	0.001	-1.048	0.337	41	n/a	n/a	42

Methadone maintenance treatment

Literature review updated May 2014.

Program Description: Methadone is an opiate substitution treatment used to treat opioid dependence. It is a synthetic opioid that blocks the effects of opiates, reduces withdrawal symptoms, and relieves cravings. Methadone is dispensed in outpatient clinics that specialize in methadone treatment and is often used in conjunction with behavioral counseling approaches.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Crime	Primary	2	-0.505	0.153	0.001	-0.505	0.153	35	n/a	n/a	36
Employment	Primary	1	-0.334	0.174	0.054	-0.334	0.174	35	n/a	n/a	36
Cannabis use	Primary	1	-0.690	0.514	0.180	-0.690	0.514	35	n/a	n/a	36
Hospitalization (general)	Primary	3	0.242	0.464	0.602	0.242	0.464	35	n/a	n/a	36
Opioid drug abuse or dependence	Primary	10	-0.785	0.254	0.001	-0.785	0.254	35	n/a	n/a	36
Alcohol use	Primary	2	-0.281	0.250	0.095	-0.281	0.250	35	n/a	n/a	36
Death	Primary	4	-0.258	0.176	0.142	-0.258	0.176	35	n/a	n/a	36
STD risky behavior	Primary	3	-0.560	0.243	0.000	-0.560	0.243	35	n/a	n/a	36

Buprenorphine/Buprenorphine-Naloxone treatment

Literature review updated May 2014.

Program Description: Buprenorhpine/Buprenorphine-Naloxone is an opiate substitution treatment used to treat opioid dependence. It is generally provided in addition to counseling therapies. Buprenorhpine/Buprenorphine-Naloxone is a partial agonist that suppresses withdrawal symptoms and blocks the effects of opioids. Two versions of buprenorphine are used in the treatment of opioid dependence. Subutex consists of buprenorphine only while Suboxone is version of buprenorphine that combines buprenorphine and naloxone. The addition of naloxone reduces the probability of overdose and reduces misuse by producing severe withdrawal effects if taken any way except sublingually. Suboxone is generally given during the maintenance phase and many clinics will only provide take-home doses of Suboxone. Buprenorphine and Buprenorphine/Naloxone are alternatives to methadone treatments and, unlike methadone, can be prescribed in office-based settings by physicians that have completed a special training.

Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Unadjusted effect size (random effects model)			Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
			ES	SE	p-value	ES	SE	Age	ES	SE	Age
Opioid drug abuse or dependence	Primary	12	-0.575	0.210	0.009	-0.580	0.210	35	n/a	n/a	36
Emergency department visits	Primary	1	-0.026	0.264	0.921	-0.026	0.264	35	n/a	n/a	36
Psychiatric symptoms	Primary	1	-0.156	0.201	0.437	-0.156	0.201	35	n/a	n/a	36

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